

Project Number:		Trackin	Tracking Code: TC09102307_ReportRev2				
Requested by: Joe Smallwood		Date: 8/3/2009 Pr		Product Rev: K			
Part #: HPSTP-29-0500-S-S			Lot #: 030609	Tech: Rodney		Riley	Eng: Troy Cook
Part description: HS Cable						Qty to	test: 40
Test Start: 4/09/2009	Test Completed: 4/2	0/2009					



35° FLEX TEST REPORT
PART DESCRIPTION
HPSTP-29-0500-S-S

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### **CERTIFICATION**

All instruments and measuring equipment were calibrated to National Institute for Standards and Technology (NIST) traceable standards according to ISO 10012-1 and ANSI/NCSL 2540-1, as applicable.

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#### **SCOPE**

To perform the following tests: DVT Flex Testing 35°

#### APPLICABLE DOCUMENTS

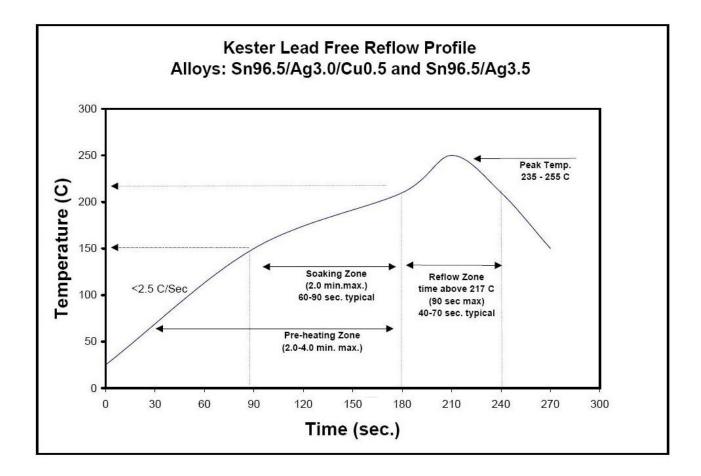
Standards: EIA Publication 364

### TEST SAMPLES AND PREPARATION

- 1) All materials were manufactured in accordance with the applicable product specification.
- 2) All test samples were identified and encoded to maintain traceability throughout the test sequences.
- 3) After soldering, the parts to be used for LLCR and DWV/IR testing were cleaned according to TLWI-0001.
- 4) Either an automated cleaning procedure or an ultrasonic cleaning procedure may be used.
- 5) The automated procedure is used with aqueous compatible soldering materials.
- 6) Parts not intended for testing LLCR and DWV/IR are visually inspected and cleaned if necessary.
- 7) Any additional preparation will be noted in the individual test sequences.
- 8) Solder Information: Lead Free
- 9) Re-Flow Time/Temp: See accompanying profile.
- 10) Samtec Test PCBs used: PCB-101763-TST-XX

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## **TYPICAL OVEN PROFILE (Soldering Parts to Test Boards)**



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## **FLOWCHARTS**

# Flex/Resistance/SIG Contiinuity

TEST	GROUP 1A			
STEP	DV End 35°			
	SIG			
01	Resistance			
02	1000 Cycles			
03	Resistance			
04	Data Review			
05	2000 Cycles			
06	Resistance			
07	Data Review			
<b>08</b> 3000 Cycles				
09	Resistance			
10	Data Review			
11	4000 Cycles			
12	Resistance			
13	Data Review			
14	5000 Cycles			
15	Resistance			

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### ATTRIBUTE DEFINITIONS

The following is a brief, simplified description of attributes.

### **CABLE DURABILITY:**

- 1) Oscillate and monitor electrical continuity for open circuit indication.
  - a.  $\pm 35^{\circ}$  Pendulum Mode, bend up to 5,000 cycles with 8 oz. load on cable end.



Fig. 2 (Typical set-up, actual part depicted.)

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## **RESULTS**

# **RESISTANCE:**

35 DEGREE	Resistance, Ohms					
	Initial	After 1000	After 2000	After 3000	After 4000	After 5000
Avg	3.6	3.5	3.6	3.6	3.5	3.6
Min	3.4	3.4	3.4	3.4	3.3	3.4
Max	4.1	3.6	3.7	3.8	3.7	3.7
St. Dev.	0.2	0.1	0.1	0.1	0.1	0.1
Count	10	10	10	10	10	10

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## **DATA**

# 35 DEGREE

Resistance, mOhms						
Cable	Initial	After 1000 Cycles	After 2000 Cycles	After 3000 Cycles	After 4000 Cycles	After 5000 Cycles
1	3.6	3.5	3.7	3.6	3.5	3.4
2	3.6	3.4	3.6	3.6	3.4	3.4
3	3.5	3.4	3.4	3.5	3.6	3.5
4	3.4	3.4	3.5	3.4	3.3	3.7
5	3.8	3.5	3.6	3.8	3.7	3.4
6	3.5	3.6	3.6	3.6	3.6	3.6
7	3.6	3.6	3.5	3.5	3.6	3.6
8	4.1	3.5	3.5	3.5	3.5	3.5
9	3.6	3.6	3.6	3.7	3.6	3.6
10	3.6	3.6	3.6	3.6	3.6	3.8

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Part description: HS Cable

# **EQUIPMENT AND CALIBRATION SCHEDULES**

**Equipment #:** MM-01

**Description:** True RMS Multimeter

Manufacturer: Fluke

Model: 87 III Serial #: 74660176 Accuracy: See Manual

... Last Cal: 06/14/07, Next Cal: 06/14/08

Equipment #: HDR - 01
Description: HDR Flex Tester
Manufacturer: Samtec Inc.

**Model:** AT-1440-000 **Serial #:** AT-1440-000

**Accuracy:** N/A

... Last Cal: No Calibration Required